



# **BSL-3**

# **Laboratory/Facility**

# **Certification Scheme**

*The Singapore's Approach*

*Se Thoe Su Yun*

*Singapore Ministry of Health*

# Facility Certifier

- Third Party Facility Certifier  
*(in the presence of MOH officers)*
- Approved by Singapore MOH (MOH-AFC)
- Criteria
  - A team of at least 2 members\*, a qualified BSP and an engineer
  - Experience in certifying\* and/or commissioning BSL-3 facility
  - Track record of company and team members
  - Good testimonial\* from past clients
  - Using MOH Certification Checklist as a basis of certifying

# **Certification Checklist**

**Expanded from the  
WHO Laboratory  
Biosafety Manual  
(3rd ed.)  
Certification  
Checklist**



# Certification Checklist

## Additional criteria

- **MOH**

- Engineering Verification

- Redundancy
    - Failure scenario

- BATA Criteria

- Control possession, material tracking and transportation
    - Personnel screening and control access
    - Training
    - Emergency response
    - Risk assessment record & IBC's approval

- **Certifier**

- CDC/NIH Guidelines (BSL-3 and ABSL-3)



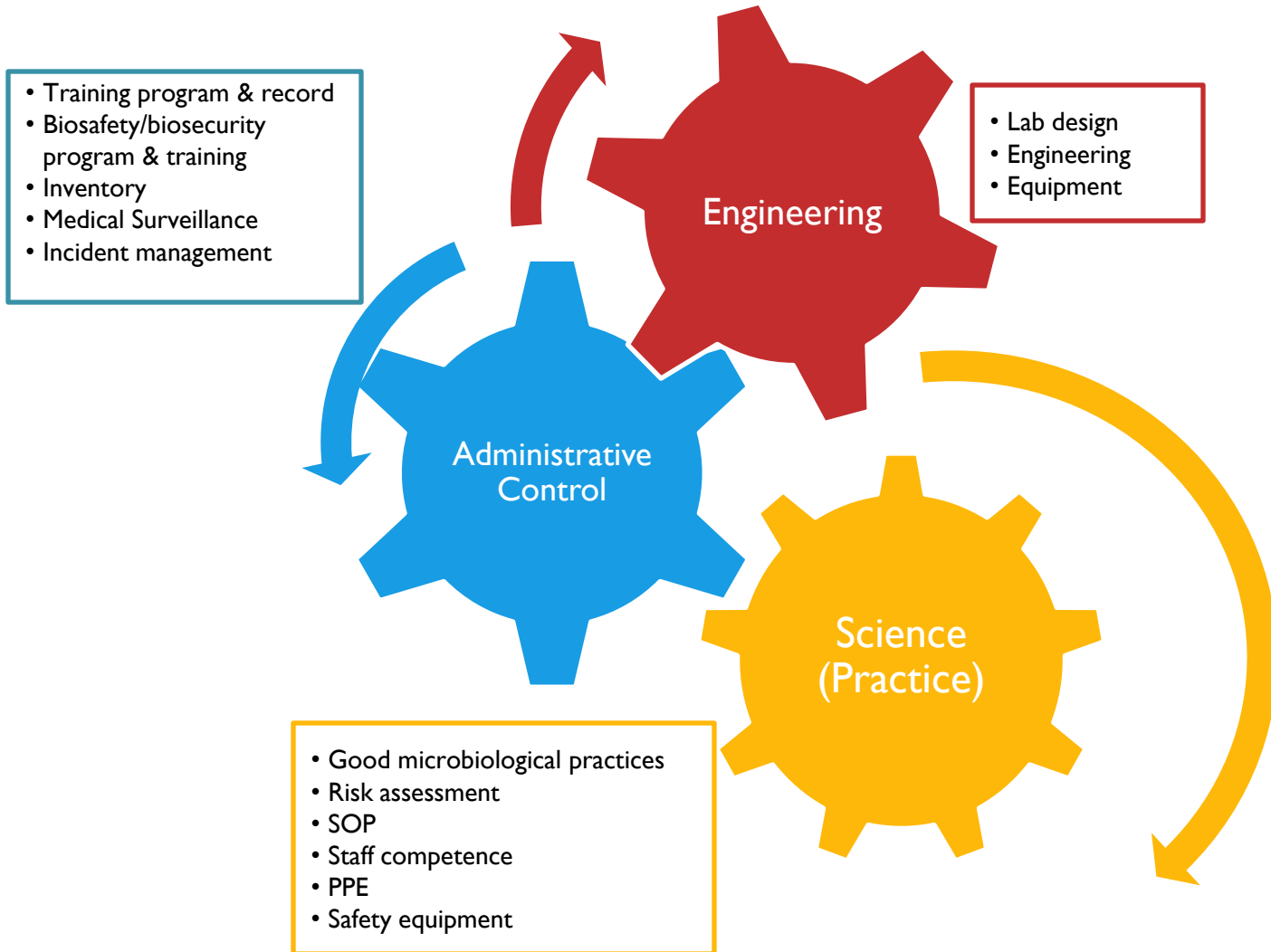
THE STATUTES OF THE REPUBLIC OF SINGAPORE

BIOLOGICAL AGENTS AND TOXINS ACT

(CHAPTER 24A)

[www.biosafety.moh.gov.sg](http://www.biosafety.moh.gov.sg)

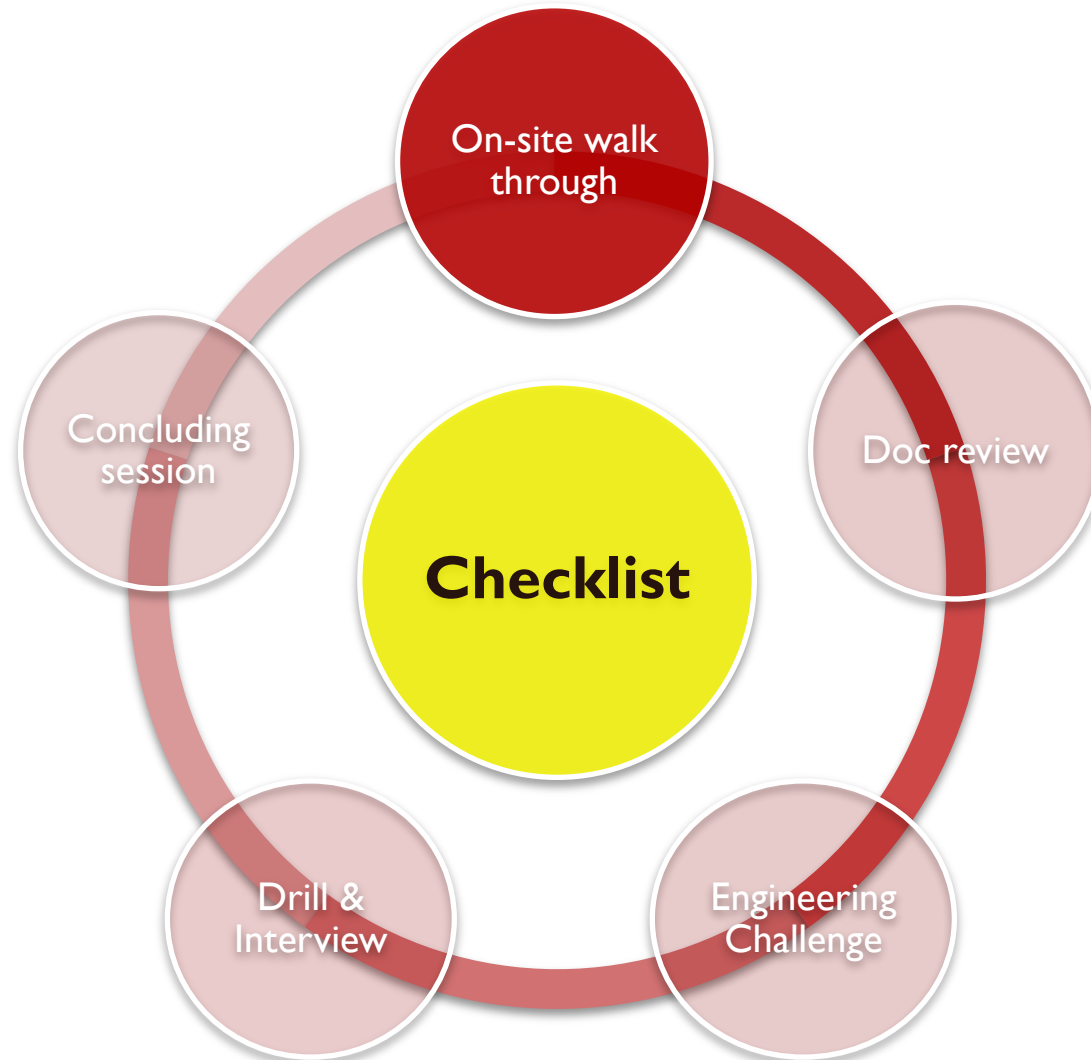
# Scope of Certification



# Certification Process



# Certification Process



# Outside the Lab







Crack on  
the wall

Overloaded  
power point

Holes in  
BSC stand





Use of glass bottle  
in BSL-3 Lab


“General” waste  
bag used in BSL-  
3 Lab

Hand-free  
device for hand  
washing sink



# Certification Process

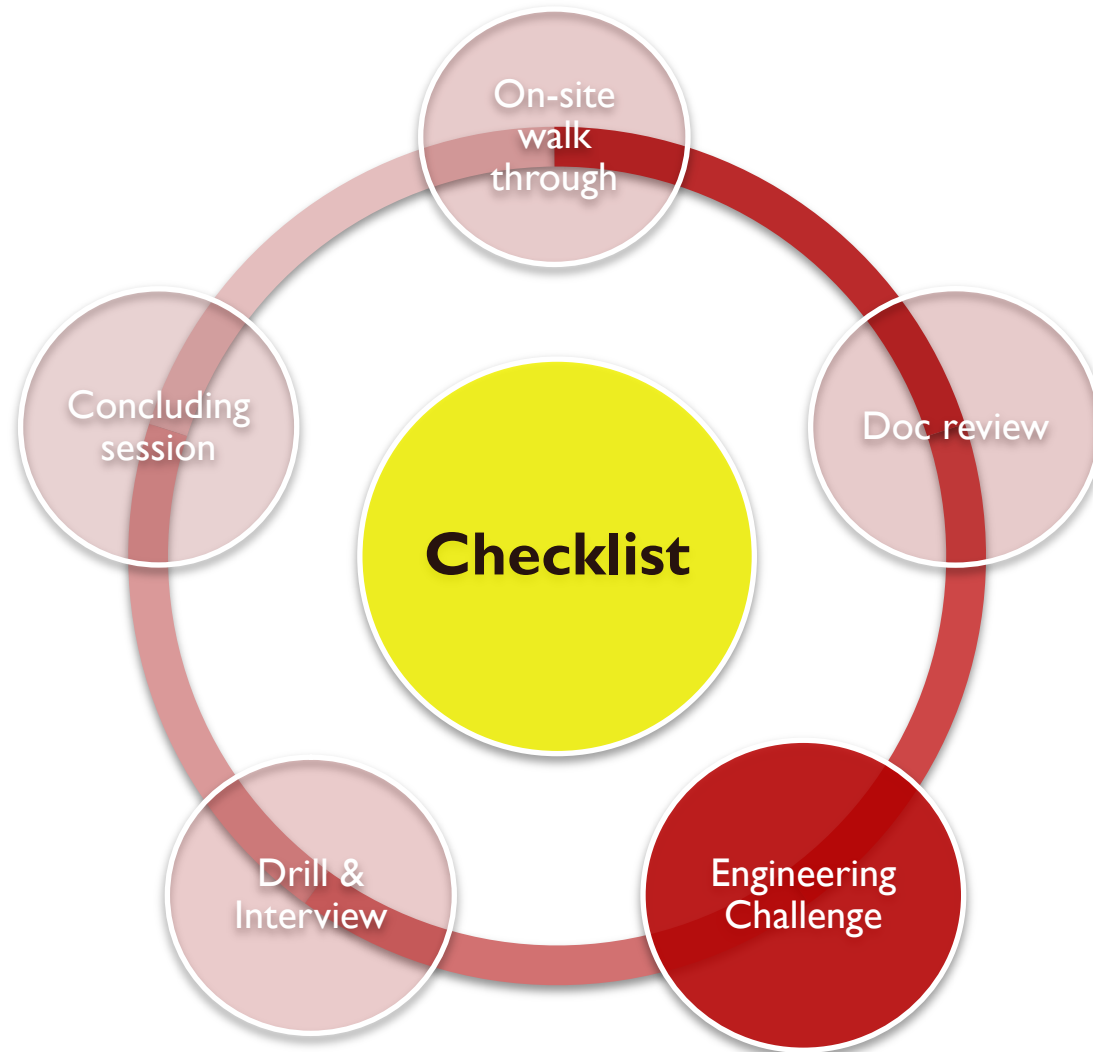


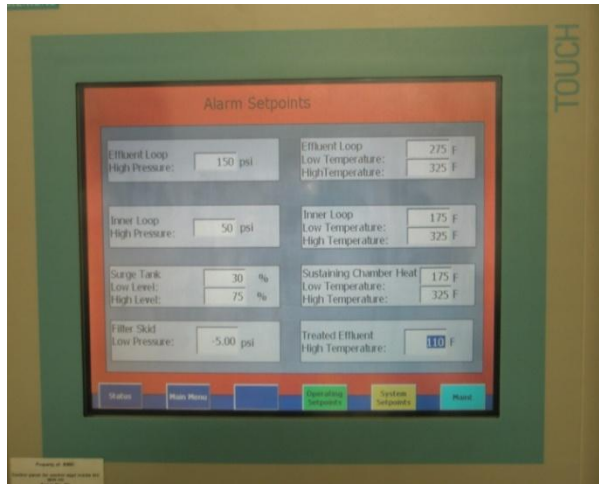
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- SOPs
  - Risk Assessment record
  - Training record
  - Equipment maintenance record
  - Incident record
  - Personnel entry record
  - Inventory record
  - Etc

# Interview

- Knowledge – the agents, the risks, the safe practice, SOPs, etc
- Practical – PPE, SOPs, etc
- New staff

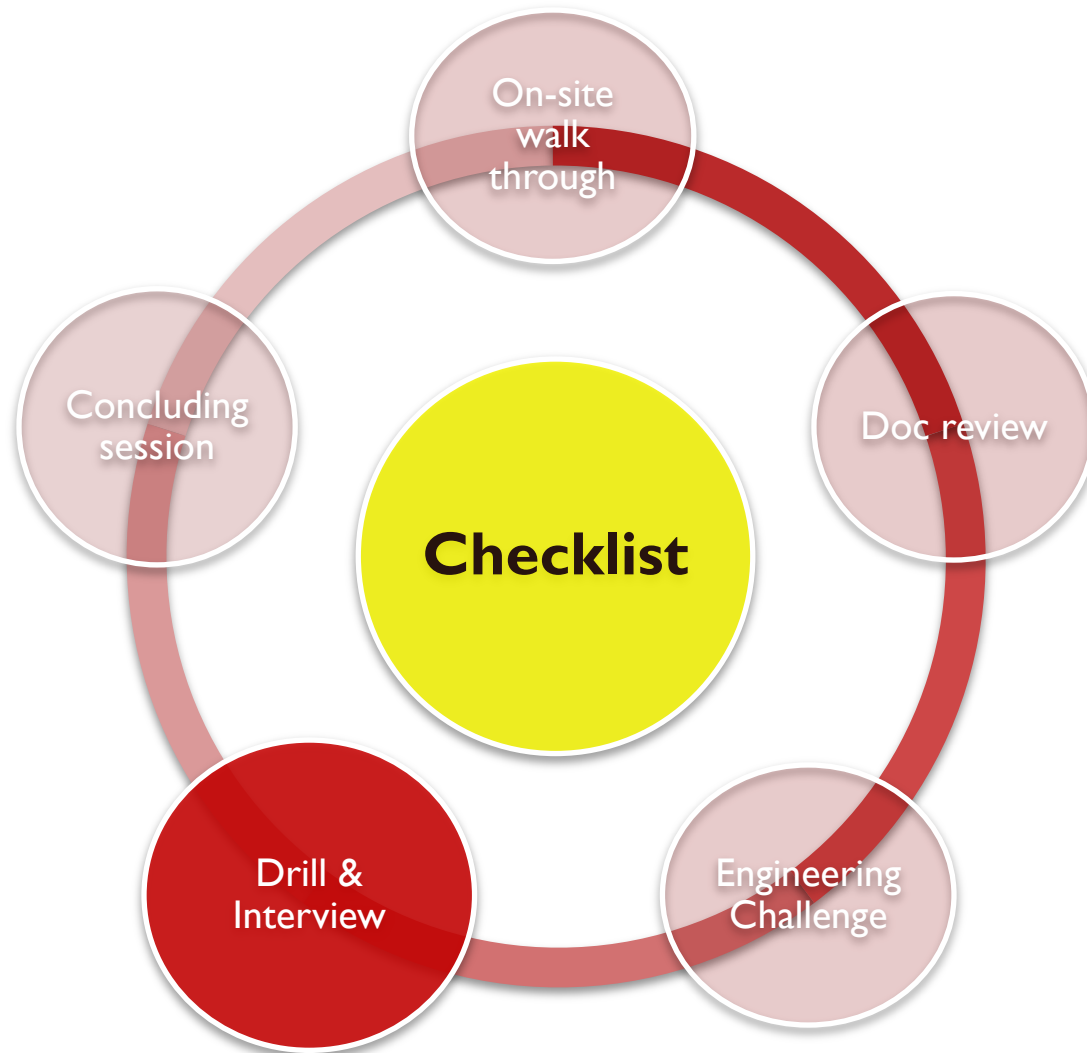
# Certification Process







# Certification Process





## In-house ER

- unconscious casualty
- biological spill



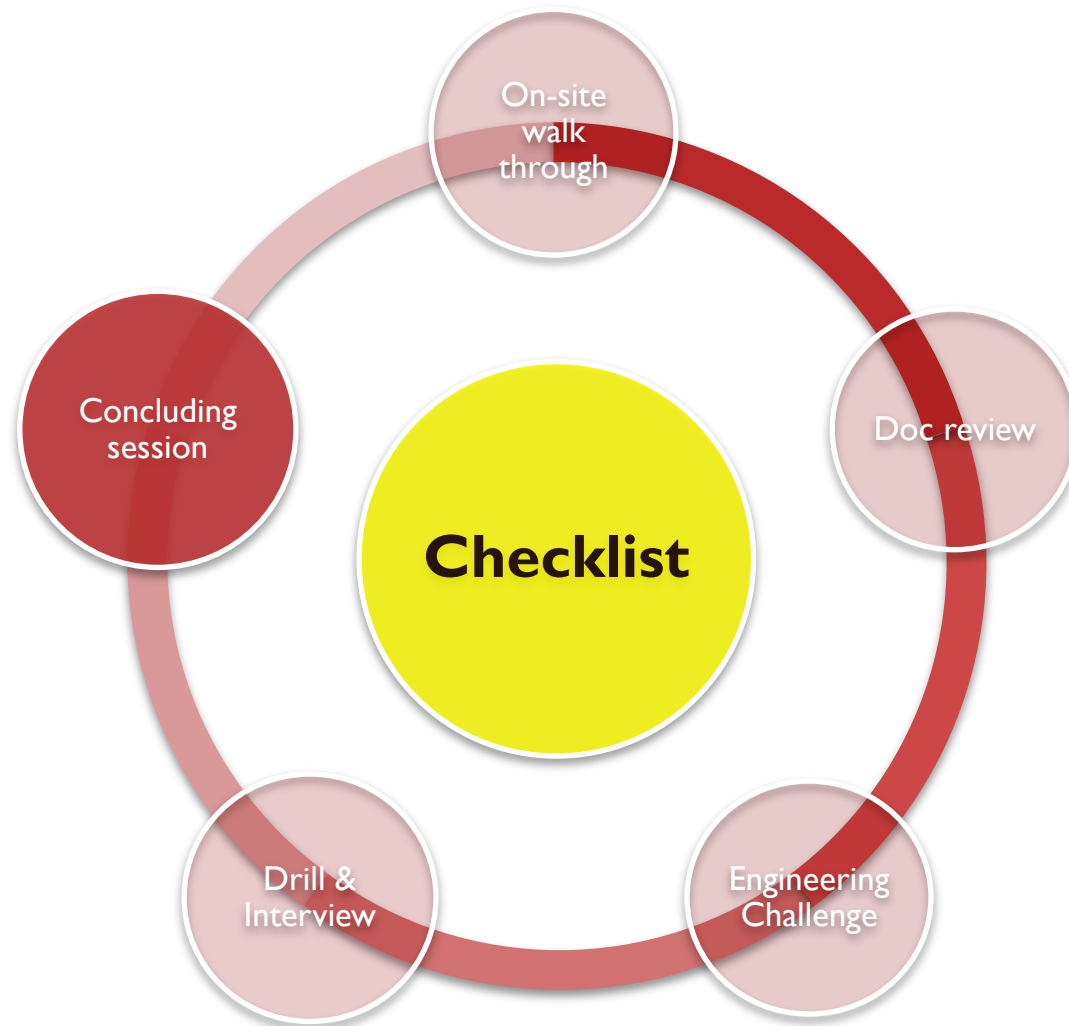


# ***Joint- Emergency Response***

*with the*

*Singapore Civil Defence Force (SCDF)  
not during the facility certification process*

# Certification Process



# Certification Process



**1 day – 1 wk (or several mth)**

- *New facility / “new” certifier*
- *Number & seriousness of the non-compliance identified*

**More than  
documentation review**

**Certificate valid for**

- *1 year; or*
- *Upon any design or structural change made to the facility, whichever is the earlier*

*THANK YOU*